

Relationships between M.B.A. Program Attributes and Personal Characteristics of Students*

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ABSTRACT

This paper investigates the relationship between the personal characteristics of newly enrolled M.B.A. students and the importance these students place on various M.B.A. program attributes. Survey data from 165 students entering three Canadian M.B.A. programs indicates that the program attributes which had the strongest relationship with the personal characteristics of the students were the use of the case method of teaching and social life/recreation. The personal characteristics which showed the strongest relationship with the attribute importance were age and the mother tongue of the students.

RESUME

Le but de cette recherche est d'identifier les relations entre les caractéristiques personnelles des étudiants nouvellement inscrits au programme de M.B.A. et l'importance qu'ils attachent aux différents attributs du programme. Les résultats d'une enquête auprès de 165 étudiants nouvellement inscrits dans trois universités canadiennes ont démontré que l'utilisation des analyses de cas comme méthode pédagogique et les notions de vie sociale/ récréation avaient un lien étroit avec les caractéristiques personnelles des étudiants. L'âge et la langue maternelle étaient par contre les deux caractéristiques personnelles reliées le plus étroitement à ces attributs.

INTRODUCTION

The primary theses of this research are that 1) students place differential importance on different attributes of a Master of Business Administration (M.B.A.) program, 2) the level of importance placed on an attribute of an M.B.A. program is related to the personal characteristics of a student, and 3) the above information can be used by academic decision

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makers to segment their market and design an appropriate product and promotional program.

In the development of a M.B.A. program strategy, attention is paid to program design with little input from the potential clients of the programs. Faculty attention concentrates on such product design variables as the philosophy of the program, the hiring of faculty members, and the deletion, addition, or modification of courses. Neglect of demand factors has meant that student input is not only infrequent and unsystematic, but potential opportunities for meeting specific requirements of students are ignored.

More specifically, traditional interest in the M.B.A. program has been concerned with such issues as the criteria for admission and academic success (Deckro and Woundenberg, 1977), curriculum design and evaluation (Homans and Sargent, 1977), models of college choice (Connolly and Vines, 1977), views of the ideal M.B.A. graduate programs for business, (Brooker and Shinoda, 1976), modelling of M.B.A. program choice (Oldham, 1976), and the evaluation of teaching approaches (Wolfe and Guth, 1975). However, as Berry & George (1975) and Berry & Allen (1977) have pointed out, one useful input to the design and promotion of an M.B.A. program is yet to be studied, namely, the segmentation of potential applicants on the basis of benefits sought from the M.B.A. program and the identification of individuals who seek more or less of a benefit. Decisions pertaining to the marketing of a M.B.A. program require recognition of the varying benefits students seek from the program and the systematic input of this data.

The analysis of market segments lies at the heart of marketing strategy formulation. Marketing strategy formulation involves two basic ideas. The first is the selection of target markets; the second is the development of effective marketing programs to win over the target markets. Market targeting, or the organization's decision regarding which segments to serve (Kotler, 1976) follows the identification of groups of clients with different product requirements.

A review article by Wilkie and Pessemier (1973) points out how the importance placed on attributes can be employed to segment the market for a product. The authors treat attribute importance as a proxy for perceived product benefits. An attribute is defined as the identifiable characteristic of a product; a product benefit is defined as the benefits that a person derives as a result of the possession of the attribute by a product.

The contribution of the importance placed on an attribute to the prediction of organizational preference or choice is examined by a number of recent studies (Vroom, 1966, Mitchell and Knudsen, 1973, Lawler, Kuleck, Rhode and Sorensen, 1975) with generally encouraging results. Related specially to the educational milieu, Connolly and Vines (1977) predicted undergraduate college choice and Oldham (1976) predicted sorority choice with models incorporating attribute importance. A few investigations have examined the correlation between the preferred attributes of an organization and the variables which potentially influence an individual's expectation of being admitted to an organization (Broedling, 1975; Evans, 1974; Graen, 1969; Henneman and Schwab, 1972; Steele and Ward, 1974). However, the literature review revealed no studies which examine the variables which could influence the importance placed by an individual on the attributes of an organization such as a M.B.A. program.

It is expected that the importance placed on the attributes of a M.B.A. program would contribute to the prediction of a preference for, or choice of, a M.B.A. program. For example, when all other factors are equal, an individual who places high importance on

the cost of education is more likely to enter an inexpensive rather than an expensive M.B.A. program. In terms of marketing strategy, the implication for an administrator of an inexpensive M.B.A. program is that he can use his marketing resources more effectively by concentrating his promotion on the potential students who place a high importance on the cost of education.

However, in order to reach the potential students or target market group with product and promotional appeals, a M.B.A. program administrator must be able to identify the qualified potential applicants who place a differential level of importance on the program attributes. Furthermore, as an aid to the product and promotional strategy formulation, he needs to know why the importance placed on an attribute varies across the members of the target market.

A study of the relationship between the importance placed on an attribute and the personal characteristics of a student would allow faculty members and administrators to identify 1) the type of applicant who may be attracted to their program, 2) the modifications that should be made in the program in order to attract a different type of applicant, and 3) the kinds of promotional appeal that would be most effective in attracting the target segment of potential M.B.A. students. When properly applied, segmentation variables would profitably divide a market into homogeneous measurable segments accessible through promotional efforts (Frank and Rao, 1971). Two of the basic segmenting approaches used in marketing are personality and socio-economic segmentation (Kotler, 1976).

The literature dealing with the individual differences approach to psychological theory (Allport, 1954; Harvey, 1967; Katz and Stotland, 1959; Katz, 1960) indicates that in theory the importance placed on an attribute of an educational program may be related to a potential student's personality characteristics. As far as the socio-demographic variables are concerned, Goodman, Dornbush, Richardson and Hastorf (1963) and Jenkins (1966) provide evidence of cultural differences and Koos (1954) of socio-economic status differences in the formation of attitudes.

A survey of the educational psychology literature confirmed that the personal characteristics of individuals were related to the attributes individuals sought from an academic program or institution. For instance, well-credentialed faculty and research oriented institutions of higher learning attracted bright students (Anderson, 1976). Commuter students had a more positive response to their education experience than did residential students (Day, 1972). Specifically, it was found that students were attracted to institutions whose instructions had attitudes similar to their own (Good, 1975). Students who were highly satisfied with their educational experience had orientations to life that were most congruent with those of the faculty (Morstain, 1977).

Hypothesis

On the basis of suggestions from prior research and the preceding discussion, one general hypothesis was examined in this study, namely, that personality and socio-economic variables relate to the importance placed on M.B.A. program attributes. Because this research is of an exploratory nature, designed simply to demonstrate the usefulness of segmentation techniques to academic decision makers, a set of specific sub-hypotheses is not proposed. However, following the suggestions made by Wells (1975), only those personality and socio-economic variables that were expected on an a priori basis to correlate with one of the dependent variables were included in the study.

SELECTION OF STUDY VARIABLES

This section is divided into two sub-sections. The first sub-section will deal with the manner in which the program attributes (dependent variable) were selected. The second section concerns itself with the choice of the personality and socio-economic characteristics (independent variable).

SELECTION OF THE M.B.A. PROGRAM ATTRIBUTES

While faculty members and administrators of an academic institution may feel that certain attributes of a M.B.A. program are important, potential students may or may not use these attributes in selecting a M.B.A. program. The process of selecting attributes to be tested began with unstructured discussions in a group of thirty (English and French) first year M.B.A. students who had just started taking courses at the University of Ottawa. Twenty attributes were generated through these discussions, of which only seven were retained for the study: research reputation of the professors, teaching ability of the professors, social life and recreation, cost of education, reputation of the degree, emphasis on case method, and emphasis on quantitative method. The selection of seven attributes was based on the perceived salience of these attributes to the students, the relative ease with which the students were able to express the importance they attached to the various attributes, and whether or not the M.B.A. program administrators could make changes in the attributes their programs offered.

SELECTION OF THE PERSONALITY AND SOCIO-ECONOMIC CHARACTERISTICS

The following paragraphs present the theoretical and conceptual grounds for selecting the specific personality and socio-economic characteristics for the study.

A number of studies dealing with the affiliation personality trait seem to indicate that both age and sex are related to the need to socialize (Jackson, 1967). It has been found that members of the female sex and younger persons have a strong need to communicate socially and participate in recreational activities. As a younger person is less likely to be married, he is expected to be concerned about outside social life and recreation. A younger person is also less likely to have accumulated savings and therefore more likely to be concerned about the cost of education. Additionally, an older person, because of his greater work experience and financial security should have somewhat clearer notions about his career goals and be somewhat less concerned about the cost of attaining those goals.

Ahmed (1977, 1978), McCarrey, Edwards and Jones (1977), Kanungo, Gorn and Dauderis (1976), and Nightingale and Toulouse (1977) have reported that an individual's language group membership was related to the importance placed on job attributes. In fact, based on a study conducted with undergraduate students, Ahmed (1977, 1978), found that the language variable outperformed all other personal variables included in the study.

Normally, one enters a M.B.A. program in order to fulfill career objectives. One would expect that many of the important job factors should also be related to the salient M.B.A. program attributes. Hence, it was felt that the findings dealing with the job factors should be relevant for studying the importance placed on M.B.A. program attributes. One's father's occupational status, previous full-time work experience and the probability

of working for the government are some of the other variables found to be related to the importance placed on the job attributes (Ahmed, 1977, 1978).

Thus, age, sex, language, father's occupational status, full time job experience and probability of entering into public service were chosen as the appropriate socio-economic variables to study.

As far as personality variables are concerned, a search of the literature revealed, that the achievement motivation of an employee was related to the attributes sought from a commercial organization (McCarrey, Edwards, and Jones, 1977). It was felt therefore that achievement motivation may relate to the attributes sought from a M.B.A. program. In terms of the selection of a specific achievement scale, the six-dimensional achievement test (Jackson, Ahmed, and Heapy, 1976) relates to the job attributes sought by the business students (Ahmed, 1977, 1978). Therefore, it was felt that the six-dimensional achievement test may be an appropriate instrument for the study of the relationship of the achievement motivation with the M.B.A. program attributes sought by potential M.B.A. students.

The trait description of the high scorer on the personality variables is provided below:

Excellence: Does a good job; works hard to win; maintains high work standards; assures that the finished product looks good; spends extra time to improve the quality of the final product; concentrates effort on one job; sticks with a difficult task; works hard to achieve high standards; corrects every detail; aims for perfection; tries hard to do well; work comes before all else.

Acquisitiveness: values high-paying job; respects self-made rich persons; works hard to make money; seeks out opportunities to become rich; salary is very important; relates performance to salary paid.

Peer Status: values what people think of him; works hard for a popular teacher; cares what others think of his work; likes publicity about his work; works to impress friends; displays his work to others; likes efforts to be appreciated; displays his ability to others.

Achievement Via Independence: likes to be evaluated solely on his own performance; dislikes team work; depends on his own efforts to get ahead; likes working alone; likes rewards based on initiative; takes personal responsibility for his success; enjoys the challenge of a new job; likes special bonuses for outstanding performance.

Expert Status: depends upon the opinion of experts; measures himself against acknowledged experts' work; seeks high regard from superiors; anticipates criticisms of experts; achieves respect of renowned authority; works closely with superiors; learns from a teacher.

Competitiveness: likes to be more successful than others; is annoyed when passed on highways; enjoys competitive games; admires those who fought their way to the top; believes in survival of the fittest; enjoys the struggle for power; enjoys intense rivalry among business executives; likes heated arguments; likes playing sports with someone better.

The following paragraphs provide additional reasons why the above mentioned individual achievement dimensions may be related to the M.B.A. program attributes.

Hackman and Lawler (1971) and Brief and Aldof (1975) note that individuals who are operating at the higher levels of Maslow's (1954) hierarchy of need (i.e. self-actualization)

display a stronger relationship to job dimensions that are intrinsic to work itself. Therefore, it was felt that the individuals who are excellence-oriented (portraying a high need for self-actualization), would tend to be less interested in the M.B.A. program attributes such as social life and recreational and educational cost that are extrinsic to the educational experience.

Campbell, Dunnette, Lawler and Weik (1970) note that salary is the most universal characteristic used by job applicants to distinguish among job offers. Reputation of the degree has been found to be related to the starting salary paid to M.B.A. graduates (Punj and Staelin, 1978). Therefore, one would expect that acquisitiveness would relate to the reputation of the degree.

Graduation from a reputable M.B.A. program is considered a status symbol in some quarters (Punj and Staelin, 1978). Therefore, one would expect that an individual who scores high on the competitiveness dimension (win out in status game over others) and/or peer status dimension, places a high importance on degree reputation.

An individual who scores high on the achievement via independence dimension would tend not to be impressed by authority. Therefore, one would expect this dimension to be negatively related to the research reputation of a professor.

Witkin, Goodenough and Karp (1967) state that the field independent persons tend to be rational and logical in evaluating persons and objects. This reflects a developed awareness and ability to maintain the kind of distance needed to objectively evaluate people or objects. There is evidence from accounting and operations research that the higher an individual scores on the Embedded Figures Test (EFT) – a measure of field independence/dependences, the more likely he is to look at problems logically and employ a greater number of variables in making decisions (Doktor and Hamilton, 1973; Huysmans, 1970; Lusk, 1973). It was felt that a field-independent person is less likely to give importance to highly popular attributes such as degree reputation and teaching ability (Ahmed, 1979) than a field-dependent person. EFT (Witkin, Goodenough and Karp, 1967) may relate to the importance placed on different attributes of a M.B.A. program, therefore, this scale along with the six-dimensional achievement scale (Jackson, Ahmed and Heapy, 1976) were chosen as the personality scales to be included in the study.

METHOD

A questionnaire dealing with the socio-economic characteristics of M.B.A. students and the importance placed on program attributes was constructed in both the English and French languages.

To control against discrepancy in meaning caused by translation from the English to the French language, the questionnaire was subjected to a double translation procedure. That is, it was translated from English to French and the resulting French version was retranslated back to English. Any discrepancies in the meaning of the questions discovered through this process were reconciled. The revised questionnaire was pretested and found to be understood by both the French and the English speaking respondents.

The data were collected from new students entering the M.B.A. programs at the University of Ottawa, McGill and Laval, three universities situated in eastern Canada. McGill provides education in the English language and Laval in French. Education in both English and French is provided at Ottawa. All the students enrolled in the 1977/78 academic year introductory marketing courses were contacted during classroom hours. Cooperation

from the students was 100%. The subjects were tested in their classrooms in the presence of the researcher. A strict timing procedure was followed in the administration of the EFT test, yielding a sample size of 165 students.

However, the sample suffers from a number of limitations. Ideally, one should study the qualified applicants rather than the students already in a M.B.A. program and one should sample from universities throughout Canada. The ideal is difficult and expensive to carry out. On the other hand, one can argue that the recent entrants to a M.B.A. program should remember the program attributes were important to them when they were applying for admission. Their responses would be a fair proxy for qualified applicants. Moreover, it was felt that by choosing a unilingual English, a unilingual French and a bilingual university, a wide variety of Canadian students would be included in the sample.

No published statistics providing demographic details of M.B.A. students exist in Canada. Therefore, it is not possible to compare the present sample with the national population. However, as the study is primarily concerned with the relationship between variables rather than the projection of a mean score to the total population, it is felt that useful conclusions may still be drawn from the data.

The data were subjected to a simple correlation and multiple regression analysis using the personality and socio-economic variables as the independent variables and the importance placed on the M.B.A. program attributes as the dependent variables. A stepwise procedure was followed to select the independent variables. Variables were allowed to enter into the regression equations provided they attained a significance of $p \leq .10$ for entry and the whole regression equation remained significant at $p \leq .05$ level.

RESULTS AND DISCUSSION

The sampling distribution of the respondents indicated that 30% of the respondents spoke French as their mother tongue, and 70% English or other languages as their mother tongue; 71% were male and 29% female, 76% had previously worked full-time and 24% had not. The average age of the respondents was 27 years. Out of the total possible score of 27, the average score on excellence was 21, on acquisitiveness, status with peers and status with experts 18 each, and achievement via independence and competitiveness, 17 each.

Importance Placed on Attributes

Out of a total possible score of 7.0, the teaching ability of the professors was ranked highest with an average score of 6.5, followed closely by the reputation of the degree (6.0). The attributes emphasis on the case method (4.8), emphasis on quantitative methods (4.7), research reputation of the professor (4.6) and the cost of education (4.4) were ranked fairly equally. Social life and recreation was ranked last (3.6).

The importance ratings placed by the graduate students on the program attributes parallel those placed by 625 graduating undergraduate business students across Eastern Canada (Ahmed, 1979). In this study of undergraduate students from seven different business programs, the teaching ability of the professors was ranked the highest with an average score of 6.4, followed closely by the reputation of the degree (5.7). The importance placed on the emphasis on the case method (4.9), emphasis on quantitative methods (4.6), research reputation of the professor (4.9) and the cost of education (4.8) were ranked fairly equally. Social life and recreation was ranked last. Thus, except for the

TABLE 1
CORRELATION MATRIX OF IMPORTANCE PLACED ON M.B.A. PROGRAM ATTRIBUTES AND PERSONAL VARIABLES

PERSONAL VARIABLES	M.B.A. PROGRAM ATTRIBUTES							NUMBER OF SIGNIFICANT r	AVERAGE SIGNIFICANCE
	RESEARCH REPUTATION	TEACHING ABILITY	SOCIAL LIFE & RECREATION	EDUCATIONAL COST	DEGREE REPUTATION	CASE METHOD	QUANTITATIVE METHOD		
AGE	—	-.05	-.30***	-.14**	-.10*	.09	.11*	4	.16
SEX	.14**	-.06	-.09	.05	-.04	.17	-.09	2	.15
NOT ENGLISH/ ENGLISH	.18	-.07	.06	-.06	-.05	.33	.06	2	.26
NOT FRENCH/ FRENCH	-.12	-.01	.09	.23***	.02	-.34***	.10	3	.26
FATHER'S OCCUPATION	-.06	.06	.11*	-	-.01	.01	.08	1	.11
PREVIOUS JOB	-.09	-.08	.08	.04	.09	-	.03	0	.00
JOIN PUBLIC SERVICE	-.08	-.05	-.23***	-.14**	-.07	-.07	-.05	2	.16
EXCELLENCE	.01	.02	-.14**	-.14**	-.08	.05	.06	2	.14
ACQUISITIVENESS	.05	-	-.07	.04	.26***	.17**	.11*	3	.18
PEER STATUS	-.06	-	.07	.04	.17**	.16**	.04	2	.16
ACHIEVEMENT VIA INDEPENDENCE	-.15**	-.08	-.09	-.20***	.02	-.01	.04	2	.18
EXPERT STATUS	.18**	-.09	-.18**	-.08	.06	.17**	.10*	4	.16
COMPETITIVENESS	-	-.06	-.11*	-.02	.13*	.09	.03	2	.12
EFT SCORE	-.13*	-.22***	-.13*	-.11*	-.16**	-.09	-.08	5	.15

* $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

slightly higher rating of social life and recreation by the undergraduate students, there is not much difference in the way the undergraduate and graduate students view the program attributes.

On the basis of the above results, one may speculate that the teaching ability of the professors is more important to the students than the method employed in teaching or the research reputation of the professors. Thus, a M.B.A. program that is attempting to recruit students should try to convince them that the universities are very concerned about the quality of teaching in their classrooms and that its professors are very good teachers. In the short run, a program may not be able to influence the overall reputation of its degree, but it can exercise some influence on the quality of teaching in its classrooms. The relatively low importance placed on the research reputation of the professors indicates that M.B.A. programs that hope to improve their attractiveness to potential students solely by emphasizing the research pedigree of their faculty members may not be very successful in their recruiting attempts. An appropriate promotional theme would be to indicate how the research reputation of a professor is related to high-calibre teaching.

The correlation matrix of the importance placed on the M.B.A. program attributes with the personal characteristics of the respondents is presented on Table 1. Table 2 presents the multiple regression of the personal characteristics with the attribute importance. The r^2 presented in the table were corrected for the number of variables in the equation. As previously stated under the methods section, a variable was allowed to enter into a multiple regression equation if it attained a significance of $p \leq .10$ for entry into the equation. In order to be consistent, a significance level of $p \leq .10$ was also used as a cut-off point for simple correlation analysis.

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TABLE 2
 MULTIPLE REGRESSION OF PERSONAL VARIABLES ON THE M.B.A. PROGRAM ATTRIBUTES

PERSONAL VARIABLES	M.B.A. PROGRAM ATTRIBUTES							NUMBER OF ENTRIES	AVERAGE RANK OF ENTRIES
	RESEARCH REPUTATION	TEACHING ABILITY	SOCIAL LIFE & RECREATION	EDUCATIONAL COST	DEGREE REPUTATION	CASE METHOD	QUANTITATIVE METHOD		
AGE	Entry Order	Entry Order	Entry Order	Entry Order	Entry Order	Entry Order	Entry Order	4	2.5
SEX	3						7	2	5.0
ENGLISH/ NOT ENGLISH	2						8 4	3	4.7
FRENCH/ NOT FRENCH				1			1 3	3	1.7
FATHER'S OCCUPATION			6					1	6.0
PREVIOUS JOB		2						1	2.0
JOIN PUBLIC SERVICE			4				3	2	3.5
EXCELLENCE									
ACQUISITIVENESS					1		2	2	1.5
PEER STATUS			5		2			2	3.5
ACHIEVEMENT VIA INDEPENDENCE				2				1	2.0
EXPERT STATUS	1		3				4	3	2.7
COMPETITIVENESS			2				2	2	2.0
EFT SCORE	4	1			3		6	4	3.5
ADJUSTED R ²	.06	.04	.19	.11	.11	.22	.04		
STATISTICAL SIGNIFICANCE LEVEL	.01	.05	.01	.01	.01	.01	.05		

Examination of Table 1 indicates that, out of the 112 correlations, 34 were significant at $p \leq .10$. This result is considerably larger than the eleven correlations one would expect on the basis of chance only. Moreover, except for the lack of correlation between sex and social life and recreation, all the relationships specified on an a priori basis between program attributes and personal variables were found to be significant.

Examination of Table 2 reveals that all six multiple regression models predicting the importance placed on M.B.A. program attributes were statistically significant. The multiple regressions for the attributes of teaching ability and quantitative method were significant at the $p \leq .05$ level. The rest were significant at the $p \leq .01$ level. Therefore, it is contended that the general hypothesis that the personal socio-economic and personality variables should be related to the importance placed on the M.B.A. program attributes is validated.

The relationship between the personal variables and program attributes is discussed in greater detail under the headings "Product Benefit Variables" and "Personal Variables". The objective of these discussions is to provide guidance as to how the results of the study can be applied by program administrators to segment their potential student market. A third section, "Other Relationships", discusses correlations not covered in the previous two headings.

Product Benefit Variables

An examination of Table 2 reveals that with a $r^2 = .04$, personal characteristics provide the lowest level of prediction for the attributes of teaching ability and quantitative

method. The low level of prediction is followed by that for the research reputation ($r^2 = .06$). As previously stated, these small relationships were statistically significant. The attributes case method ($r^2 = .22$) and social life and recreation ($r^2 = .19$) were predicted somewhat more accurately by the personal characteristics. The prediction for the attributes educational cost ($r^2 = .11$) and degree reputation ($r^2 = .11$) were in the middle.

The relatively high amount of variance explained by the personal variables for the attributes case method and social life and recreation seem to indicate that it may be possible for M.B.A. program administrators to identify the potential applicants who place more or less importance on these attributes. Examination of the correlation matrix indicates that the case method appeals to English students ($r = .33, p \leq .01$), females ($r = .17, p \leq .05$), and individuals who have a strong need for acquisitiveness status ($r = .17, p \leq .05$). Therefore, program administrators who feel that their M.B.A. program excels in the case method of teaching, would benefit by targeting their marketing program to a combination of the above mentioned groups. Social life and recreation seems to be sought by younger persons ($r = -.30, p \leq .01$), those less likely to work for the government ($r = .23, p \leq .01$) and individuals having low need for expert status ($r = -.18, p \leq .05$) and excellence ($r = .14, p \leq .05$). Hence, the above groups would form the target market for the M.B.A. program that feels that social life and recreation are the distinctive product benefits it can provide to its clients.

In order to attract more and better students, an administrator may decide to alter the prospective students' perception of the extent to which the program possesses the attributes of social life and recreation and the case method of teaching by changing the M.B.A. program attribute bundle. This task, is not an easy one to accomplish. As far as social life and recreation is concerned, provision of this attribute is not under the full control of a M.B.A. program. Many of the social and recreational activities which the students engage in are either provided by the university to which the M.B.A. program belongs or the city and the region in which the university campus is located.

Regarding the case-teaching attribute, it is possible that some faculty members who are not used to teaching with case studies may find it difficult to change their teaching style and thus they may resist change to a new instructional method. If the extent of new hiring in a M.B.A. program faculty is limited, it may not be possible for the program to overcome this difficulty by acquiring a sufficient number of new case teachers.

Non-case oriented M.B.A. programs which are interested in attracting case study seekers to their program may attempt to change the perceived benefit structure of students. Through a promotional program, the non-case oriented programs could illustrate how their teaching method is in the long term interests of students. Alternatively, if the programs feel that the cost of such a promotional effort is too high, they may decide to simply concentrate on the non-case seeking segment of the market.

Thus, in the short run, it would be easier for a M.B.A. program administrator to recruit the potential students who are interested in the benefit bundle that the program provides, rather than try to appeal to new groups by changing its attributes bundle.

Personal Variables

So far, the discussion of the results has concerned the program attributes that can be used to segment potential students and the socio-psychological profile of potential students desiring these attributes. The following discussion addresses the results dealing with the personal socio-psychological attributes most strongly related to the attributes or benefits

sought from the M.B.A. program. The usefulness of a personal attribute as a segmentation variable will be assessed in terms of a) whether or not it entered into a multiple regression equation explaining the variance contained in the scores for the importance placed on an attribute, and b) whether or not the variable correlated significantly with an attribute.

In order to identify the personal variables that may be useful for the purposes of market segmentation, an actual number of significant correlations and the average size of these correlations are used as indices of correlation strength. It is believed that a variable that correlates sizeably with a large number of program attributes may be a proxy for different levels of desired benefit bundles.

For the reasons discussed earlier, actual number of entries and the average rank at which a variable entered into the seven multiple regression equations are used as indices of the variable's usefulness in explaining the variance contained in the attribute importance scores. Although both these measures are somewhat arbitrary, they should aid in focussing attention on the personal variables that M.B.A. program administrators use as a proxy for benefit bundle preferences.

To facilitate analysis of the data, the trichotomous language variable, English, French, and other mother tongue, was reduced to two dummy variables, French/not French and English/not English. Tables 1 and 2 indicate that the variable French/not French entered into three predictive multiple regression equations with an average rank order of entry equalling 1.7 and correlated significantly with three program attributes. The average size of the correlations was .26. The other language variable, English/not English, also appeared in three predictive equations, but with an average rank order of entry of only 4.6. This variable correlated significantly with two attributes with an average $r = .26$. Thus, it appears that mother tongue was the most useful personal variable. The pattern of correlations indicated that English respondents were less concerned about the research reputation of the professors ($r = .18, p \leq .05$) and seemed to prefer the case method of teaching more strongly than the French ($r = .33, p \leq .01$). On the other hand, French students placed a high value on the cost of education ($r = .23, p \leq .01$) and a low value on the case method of teaching ($r = -.34, p \leq .01$). The strong relationship of the language variable to the attributes sought in a M.B.A. program conform with prior expectations outlined under "Selection of Study Variables".

The discrepancy between the two language groups in value placed on research reputation and the case method approach may reflect differences in confidence. Henderson, Long and Gantcheff (1970), Long, Henderson, Gantcheff and Kastersztein (1972) and Lambert (1970) have shown that French Canadians tend to have lower self esteem than English Canadians. Perhaps the favorable research reputation of professors gives French students confidence that they are learning what is at the frontier of knowledge on the authority of someone whose expertise is made obvious to the rest of the world by his research reputation.

The relatively lower level of self esteem may also help explain why French students ranked the importance of the case method lower than the English. The case method of teaching involves discussion in a group setting. Although the teacher leads the discussion and provides a summary, most of the learning takes place by listening to the other students. Individuals who are low in self esteem desire guidance from their superiors, and thus they may underrank discussion-based teaching methods such as the case method.

Age and EFT score were the other most important segmentation variables and they attained four entries in the multiple regression equations. Moreover, age correlated signi-

ificantly with the importance placed on four attributes (average $r = .16$) and EFT with five (average $r = .15$). The pattern of these correlations indicates that the younger a person is, the more likely he is to be interested in social life and recreation ($r = -.30, p \leq .01$) and the cost of education ($r = -.14, p \leq .01$). The correlations of EFT with M.B.A. program attributes indicate that the EFT score relates negatively to the teaching ability of the professors ($r = -.22, p \leq .01$) and the reputation of the degree ($r = .13, p \leq .05$).

Other Relationships

In addition to the personal variables that correlated with several M.B.A. attributes, other correlations may be of interest to the M.B.A. program administrators.

As predicted, individuals scoring high on the excellence dimension were somewhat less interested in social life and recreation ($r = -.14, p \leq .05$). Individuals high on acquisitiveness tended to place greater importance on the reputation of the degree ($r = .26, p \leq .01$). Status with experts was related positively to the research reputation of the teacher ($r = .18, p \leq .05$) and negatively to social life and recreation ($r = -.18, p \leq .05$).

Somewhat surprisingly, status with experts was also related to the importance placed on the case method ($r = .17, p \leq .05$). It may be that the close student-teacher interaction involved in the case method of teaching allows the expert esteem seekers to engage in esteem-gaining activities more frequently than would be the case with other methods.

The above correlations were small in size, but except in the case of the relationship between status with experts and case method, all were in the direction predicted.

MANAGERIAL IMPLICATIONS

Results of this study have a number of implications for M.B.A. program administrators and public policy makers.

M.B.A. program administrators who wish to attract English speaking Canadian students, may benefit by providing and promoting the case method of teaching. At the same time, M.B.A. programs that make extensive use of case studies could hurt their recruitment level of French Canadian applicants by placing a heavy emphasis on the case teaching method in their promotional program. If, however, for reasons of efficiency or advertising ethics, it is not feasible to have separate promotional programs for the English and the French target markets, a M.B.A. program should justify strongly its use of case studies. The argument might emphasize how the use of cases helps a student develop self-confidence, improve analytic skills and become involved in the business decision-making process.

Administrators of a M.B.A. program that make little use of the case teaching method may benefit by explaining why they do not use case studies. They may wish to explain what the special advantages of their techniques are and how the use of their technique provides teaching experience of high quality for students.

It is only the recent years that French Canadians have opted for a professional college education. One of the reasons for the previous lack of strong attendance in professional schools relates to poor family backgrounds where the concern for the cost of education has been considerable. Graduate administrators, as well as public policy decision makers, that wish to encourage more French Canadian students to pursue a M.B.A. degree might consider providing them with financial aid or low cost education.

Because M.B.A. degree holders eventually may hold well-paying jobs, some public policy makers may feel that financial aid to M.B.A. students cannot be socially justified.

However, if a society believes that the members of its minority groups should be represented in its economic elite, than encouragement through special financial incentives makes sense.

A number of administrators may wish to encourage older individuals with work experience to enter their M.B.A. programs. In fact, many programs facilitate the entrance of such individuals in their M.B.A. programs. As discussed previously, these older individuals may not be too concerned about a program's capacity to provide them with social life and recreation or low cost education. Therefore, administrators who feel that social life and recreation is a particularly attractive attribute of their program would be well advised to concentrate their promotion more heavily on the younger potential students. This approach would be particularly advisable if the cost of education (tuition fees, room, board, etc.) of their program is low.

This paper has taken the approach that a M.B.A. program administrator is interested in stimulating applications from, and enrollment by, qualified students. However, the segmentation technique can also be employed for making other educational marketing decisions. For example, a university interested in reducing the dropout rate of its students may wish to segment the potential applicants on the basis of the likelihood of a student dropping out. For the groups most prone to drop out, the influencing factors should be uncovered and members at the groups should be provided with detailed information on these factors to discourage them from applying. For example, a M.B.A. program located in a small town finds that the drop out rate among young, single students is high. It also finds that the high drop out rate is attributable to the lack of suitable social and recreational facilities on campus. The program administrator may then segment its potential applicants on the basis of age and marital status. In promoting its program to the young single segment, it may highlight the lack of suitable social life and recreation on the campus. If such a marketing strategy were adopted, young singles who place high priority on social life and recreation would be discouraged from applying or from accepting the offer of admission.

The research investigated only the importance placed by the potential students on M.B.A. program attributes. In the future researchers may wish to compare the importance placed by students on a M.B.A. program with that placed on it by faculty members.

The results of the study indicate that it is possible to segment the potential M.B.A. student market both on the basis of program attributes and personal variables. It is recommended that M.B.A. program administrators consider segmenting their market in order to plan a more effective marketing strategy.

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